

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method comprising:

receiving, with a processor at a server computer system, a plurality of requests for portions of a JPM file across a network; and

transmitting, with the processor at the server computer system, a JPM file in parts across the network in response to the plurality of requests, wherein each of the parts is a legal JPM file, and

wherein transmitting the JPM file comprises:

transmitting a first legal JPM file corresponding to a first request of the plurality of requests;

tracking items of the JPM file transmitted in the first legal JPM file in response to the first request; and

transmitting a second legal JPM file corresponding to a second request of the plurality of requests without including the tracked items, the second legal JPM file referring to the first legal JPM file.

2. (Original) The method defined in Claim 1 wherein the portions are selected from a group consisting of one or more desired pages, one or more desired regions on a page, desired resolution for data being returned, a desired technique to receive returned data, and an indication of data from the JPM file that has already been received.

3. (Original) The method defined in Claim 1 wherein the request is selected from a group consisting of a spatial portion of a page, a lower resolution of a page, a range of pages, and non-label boxes.
4. (Original) The method defined in Claim 1 wherein at least one of the requests specifies a box type in the JPM file and at least one of the parts of the JPM file includes information stored in one or more of each box of the box type specified in the at least one request.
5. (Original) The method defined in Claim 4 wherein the at least one request further specifies a sub-box associated with the box type, and wherein the response includes data associated with the sub-box of the box type.
6. (Original) The method defined in Claim 1 wherein at least one of the plurality of requests specifies a box in the JPM file starting at an offset.
7. (Original) The method defined in Claim 6 wherein the response returns all of the contents of the box.
8. (Original) The method defined in Claim 1 wherein at least one of the plurality of requests specifies page size that a page in the JPM file would take on a display and specifies a portion of an image requested within the page.

9. (Original) The method defined in Claim 1 wherein at least one parameter in at least one of the plurality of requests indicates a range.
10. (Original) The method defined in Claim 1 wherein at least one of the plurality of requests includes an offset from an object box to obtain a portion of a codestream pointed to by the offset.
11. (Original) The method defined in Claim 1 wherein at least one of the plurality of requests specifies a frame size, a region offset, and a region size to identify a portion of a codestream to obtain.
12. (Original) The method defined in Claim 1 wherein at least one of the plurality of requests includes a page request parameter.
13. (Original) The method defined in Claim 1 further comprising storing the JPM file on a server using external file storage.
14. (Original) The method defined in Claim 1 further comprising storing the JPM file on a server with a plurality of codestreams in shared data entry boxes.
15. (Original) The method defined in Claim 1 further comprising:

collecting boxes in the JPM file relevant to at least one of the plurality of requests;

forming a new JPM file with the boxes that are relevant to the at least one request, including adjusting any references of the boxes to new locations in the file; and transmitting the new JPM file.

16. (Original) The method defined in Claim 15 wherein forming the new JPM file comprises eliminating pointers to external files.

17. (Original) The method defined in Claim 15 where forming the new JPM file comprises adjusting page counts and the number of objects on a page.

18. (Original) The method defined in Claim 17 wherein adjusting page counts and the number of objects on a page comprises adjusting only those pages and objects needed to fulfill at least one of the plurality of requests.

19. (Previously Presented) The method defined in Claim 1 wherein transmitting the JPM file in parts in response to the plurality of requests comprises transmitting another first JPM file with at least one reference to at least one externally stored file.

20. (Original) The method defined in Claim 19 wherein the at least one externally stored file comprises at least one externally stored codestream.

21. (Previously Presented) The method defined in Claim 19 further comprising sending another JPM file with references to data in a previously sent JPM file.
22. (Original) The method defined in Claim 1 further comprising grouping the JPM file with any externally referenced files and sending the grouping in response to at least one of the plurality of requests.
23. (Original) The method defined in Claim 22 wherein the grouping is a MIME file.
24. (Original) The method defined in Claim 1 wherein transmitting a JPM file in parts in response to the plurality of requests comprises transmitting the JPM file with changed references for objects that are not part of one or more requests to point to a file on a server without removing pages or layout objects.
25. (Original) The method defined in Claim 24 further comprising:
sending another JPM file that includes codestream data that extends one or more codestreams in the previously sent JPM file.
26. (Currently Amended) An article of manufacture having one or more recordable storage media storing executable instructions thereon which, when executed by a system, cause the system to perform a method comprising:
receiving a plurality of requests for portions of a JPM file across a network; and

transmitting a JPM file in parts across the network in response to the plurality of requests, wherein each of the parts is a legal JPM file, and

wherein transmitting the JPM file comprises:

transmitting a first legal JPM file corresponding to a first request of the plurality of requests;

tracking items of the JPM file transmitted in the first legal JPM file in response to the first request; and

transmitting a second legal JPM file corresponding to a second request of the plurality of request without including the tracked items, the second legal JPM file referring to the first legal JPM file.

27. (Original) The article of manufacture defined in Claim 26 wherein the portions are selected from a group consisting of one or more desired pages, one or more desired regions on a page, desired resolution for data being returned, a desired technique to receive returned data, and an indication of data from the JPM file that has already been received.

28. (Original) The article of manufacture defined in Claim 26 wherein the request is selected from a group consisting of a spatial portion of a page, a lower resolution of a page, a range of pages, and non-label boxes.

29. (Original) The article of manufacture defined in Claim 26 wherein at least one of the requests specifies a box type in the JPM file and at least one of the parts of the JPM

file includes information stored in one or more of each box of the box type specified in the at least one request.

30. (Original) The article of manufacture defined in Claim 29 wherein the at least one request further specifies a sub-box associated with the box type, and wherein the response includes data associated with the sub-box of the box type.

31. (Original) The article of manufacture defined in Claim 26 wherein at least one of the plurality of requests specifies a box in the JPM file starting at an offset.

32. (Original) The article of manufacture defined in Claim 31 wherein the response returns all of the contents of the box.

33. (Original) The article of manufacture defined in Claim 26 wherein at least one of the plurality of requests specifies page size that a page in the JPM file would take on a display and specifies a portion of an image requested within the page.

34. (Original) The article of manufacture defined in Claim 26 wherein at least one parameter in at least one of the plurality of requests indicates a range.

35. (Original) The article of manufacture defined in Claim 26 wherein at least one of the plurality of requests includes an offset from an object box to obtain a portion of a codestream pointed to by the offset.

36. (Original) The article of manufacture defined in Claim 26 wherein at least one of the plurality of requests specifies a frame size, a region offset, and a region size to identify a portion of a codestream to obtain.

37. (Original) The article of manufacture defined in Claim 26 wherein at least one of the plurality of requests includes a page request parameter.

38. (Original) The article of manufacture defined in Claim 26 wherein the method further comprises storing the JPM file on a server using external file storage.

39. (Original) The article of manufacture defined in Claim 26 wherein the method further comprises storing the JPM file on a server with a plurality of codestreams in shared data entry boxes.

40. (Original) The article of manufacture defined in Claim 26 wherein the method further comprises:

collecting boxes in the JPM file relevant to at least one of the plurality of requests;
forming a new JPM file with the boxes that are relevant to the at least one request, including adjusting any references of the boxes to new locations in the file; and transmitting the new JPM file.

41. (Original) The article of manufacture defined in Claim 40 wherein forming the new JPM file comprises eliminating pointers to external files.
42. (Original) The article of manufacture defined in Claim 40 wherein forming the new JPM file comprises adjusting page counts and the number of objects on a page.
43. (Original) The article of manufacture defined in Claim 42 wherein adjusting page counts and the number of objects on a page comprises adjusting only those pages and objects needed to fulfill at least one of the plurality of requests.
44. (Previously Presented) The article of manufacture defined in Claim 26 wherein transmitting a JPM file in parts in response to the plurality of requests comprises transmitting another first JPM file with at least one reference to at least one externally stored file.
45. (Original) The article of manufacture defined in Claim 44 wherein the at least one externally stored file comprises at least one externally stored codestream.
46. (Previously Presented) The article of manufacture defined in Claim 44 wherein the method further comprises sending another second JPM file with references to data in a previously sent JPM file.

47. (Original) The article of manufacture defined in Claim 26 wherein the method further comprises grouping the JPM file with any externally referenced files and sending the grouping in response to at least one of the plurality of requests.

48. (Original) The article of manufacture defined in Claim 47 wherein the grouping is a MIME file.

49. (Original) The article of manufacture defined in Claim 26 wherein transmitting a JPM file in parts in response to the plurality of requests comprises transmitting the JPM file with changed references for objects that are not part of one or more requests to point to a file on a server without removing pages or layout objects.

50. (Original) The article of manufacture defined in Claim 49 wherein the method further comprises:

sending another JPM file that includes codestream data that extends one or more codestreams in the previously sent JPM file.

51. (Currently Amended) An apparatus comprising:

an input to receive a plurality of requests for portions of a JPM file stored in a storage medium across a network; and

a server core, coupled with the input, to transmit a JPM file in parts across the network in response to the plurality of requests, wherein each of the parts is a legal JPM file, and

wherein to transmit the JPM file, the server core:

transmits a first legal JPM file corresponding to a first request of the plurality of requests;

tracks items of the JPM file transmitted in the first legal JPM file in response to the first request; and

transmits a second legal JPM file corresponding to a second request of the plurality of requests without including the tracked items, the second legal JPM file referring to the first legal JPM file. [[.]]

52. (Original) The apparatus defined in Claim 51 wherein the portions are selected from a group consisting of one or more desired pages, one or more desired regions on a page, desired resolution for data being returned, a desired technique to receive returned data, and an indication of data from the JPM file that has already been received.

53. (Original) The apparatus defined in Claim 51 wherein the request is selected from a group consisting of a spatial portion of a page, a lower resolution of a page, a range of pages, and non-label boxes.

54. (Original) The apparatus defined in Claim 51 wherein at least one of the requests specifies a box type in the JPM file and at least one of the parts of the JPM file includes information stored in one or more of each box of the box type specified in the at least one request.

55. (Original) The apparatus defined in Claim 54 wherein the at least one request further specifies a sub-box associated with the box type, and wherein the response includes data associated with the sub-box of the box type.
56. (Original) The apparatus defined in Claim 51 wherein at least one of the plurality of requests specifies a box in the JPM file starting at an offset.
57. (Original) The apparatus defined in Claim 56 wherein the response returns all of the contents of the box.
58. (Original) The apparatus defined in Claim 51 wherein at least one of the plurality of requests specifies page size that a page in the JPM file would take on a display and specifies a portion of an image requested within the page.
59. (Original) The apparatus defined in Claim 51 wherein at least one parameter in at least one of the plurality of requests indicates a range.
60. (Original) The apparatus defined in Claim 51 wherein at least one of the plurality of requests includes an offset from an object box to obtain a portion of a codestream pointed to by the offset.

61. (Original) The apparatus defined in Claim 51 wherein at least one of the plurality of requests specifies a frame size, a region offset, and a region size to identify a portion of a codestream to obtain.
62. (Original) The method defined in Claim 51 wherein at least one of the plurality of requests includes a page request parameter.
63. (Original) The apparatus defined in Claim 51 wherein the server core stores the JPM file in an external file storage.
64. (Original) The apparatus defined in Claim 51 wherein the server core stores the JPM file with a plurality of codestreams in shared data entry boxes.
65. (Previously Presented) The apparatus defined in Claim 51 wherein the server core transmits a JPM file in parts in response to the plurality of requests by transmitting another first JPM file with at least one reference to at least one externally stored file.
66. (Original) The apparatus defined in Claim 65 wherein the at least one externally stored file comprises at least one externally stored codestream.
67. (Previously Presented) The apparatus defined in Claim 65 further comprising sending another second JPM file with references to data in a previously sent JPM file.

68. (Previously Presented) The apparatus defined in Claim 51 wherein the server core transmits a JPM file in parts in response to the plurality of requests by transmitting the JPM file with changed references for objects that are not part of one or more requests to point to a file on a server without removing pages or layout objects.

69. (Previously Presented) The apparatus defined in Claim 68 wherein the server core sends another JPM file that includes codestream data that extends one or more codestreams in the previously sent JPM file.

70. (Currently Amended) A method comprising:
receiving, with a processor at a server computer system, a plurality of requests for portions of a JPM file across a network;
collecting, with the processor at the server computer system, boxes in the JPM file relevant to at least one of the plurality of requests for portions of the JPM file;
forming, with the processor at the server computer system, a new legal JPM file with the boxes that are relevant to the at least one request, including adjusting any references of the boxes to new locations in the new legal JPM file and eliminating pointers to external files; and
transmitting, with the processor at the server computer system, the new legal JPM file across a network; and
tracking the boxes formed into the new legal JPM file to prevent retransmitting the tracked boxes in response to a subsequent request for portions of the JPM file.

71. (Cancelled)
72. (Previously Presented) The method defined in Claim 70 where forming the new legal JPM file comprises adjusting page counts and the number of objects on a page.
73. (Original) The method defined in Claim 72 wherein adjusting page counts and the number of objects on a page comprises adjusting only those pages and objects needed to fulfill at least one of the plurality of requests.
74. (Currently Amended) An article of manufacture having one or more recordable storage media storing executable instructions thereon which, when executed by a system, cause the system to perform a method comprising:
- receiving a plurality of requests for portions of a JPM file across a network;
- collecting boxes in the JPM file relevant to at least one of the plurality of requests;
- forming a new legal JPM file with the boxes that are relevant to the at least one request, including adjusting any references of the boxes to new locations in the new legal JPM file and eliminating pointers to external files; and
- transmitting the new legal JPM file across the network; and
- tracking the boxes formed into the new legal JPM file to prevent retransmitting the tracked boxes in response to a subsequent request for portions of the JPM file.
75. (Currently Amended) An apparatus comprising:

means for receiving a plurality of requests for portions of a JPM file across a network;

means for collecting boxes in a JPM file relevant to at least one of the plurality of requests received across the network;

means for forming a new JPM file with the boxes that are relevant to the at least one request, including adjusting any references of the boxes to new locations in the new JPM file and eliminating pointers to external files; and

means for transmitting the new legal JPM file across the network; and

means for tracking the boxes formed into the new legal JPM file to prevent retransmitting the tracked boxes in response to a subsequent request for portions of the JPM file.

76. (Currently Amended) A method comprising:

receiving, with a processor at a server computer system, a plurality of requests for portions of a JPM file across a network;

transmitting, with the processor at the server computer system, the JPM file in parts across the network in response to the plurality of requests, wherein each of the parts is a legal JPM file;

tracking the parts of the JPM file to prevent retransmitting the tracked parts in response to subsequent requests for portions of the JPM file;

sending parts of the JPM file with an indication of the parts being sent across the network; and

filling in gaps in a received legal JPM file with newly-created free boxes.

77. (Original) The method defined in Claim 76 wherein sending parts of the JPM file with the indicating of the parts being sent comprises using an HTTP response indicating partial content and byte ranges of returned boxes.

78. (Cancelled)

79. (Previously Presented) The method defined in Claim 76 further comprising adjusting size of the free boxes as new data that fills one or more of the gaps in the received JPM file arrives.

80. (Currently Amended) An article of manufacture having one or more recordable storage media storing executable instructions thereon which, when executed by a system, cause the system to perform a method comprising:

receiving a plurality of requests for portions of a JPM file across a network;

transmitting a JPM file in parts across the network in response to the plurality of requests, wherein each of the parts is a legal JPM file;

tracking the parts of the JPM file to prevent retransmitting the tracked parts in response to subsequent requests for portions of the JPM file;

sending parts of the JPM file with an indication of the parts being sent across the network; and

filling in gaps in a received JPM file with newly-created free boxes.

81-82. (Cancelled)

83. (New) The method of claim 1, wherein said tracking further comprises:

maintaining a cache model of locations of codestream fragments of the JPM file transmitted in a previous response.

84. (New) The method of claim 1, wherein said tracking further comprises:

tracking the first request and a size of the first legal JPM file transmitted in response to the first request; and

in response to receiving the second request, determining how the first legal JPM file would have been generated based on the tracked first request and size, and determining locations of items for the second legal JPM file that do not include the items of the JPM file.